

Canadian Atomic Energy Control Board,  
Special Committee on the operations of

1949

SECOND SESSION  
HOUSE OF COMMONS

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SPECIAL COMMITTEE  
ON THE  
OPERATIONS  
OF THE  
ATOMIC ENERGY  
CONTROL BOARD

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 5

THURSDAY, DECEMBER 1, 1949

MONDAY, DECEMBER 5, 1949

WEDNESDAY, DECEMBER 7, 1949

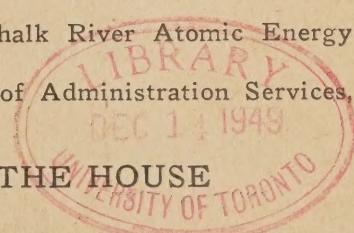
WITNESSES

Mr. J. L. Gray, Chief of Administration, Chalk River Atomic Energy Project.

Mr. T. W. Morison, General Superintendent of Administration Services, Chalk River Atomic Energy Project.

INCLUDING REPORT TO THE HOUSE

OTTAWA  
EDMOND CLOUTIER, C.M.G., B.A., L.Ph.,  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
CONTROLLER OF STATIONERY  
1949





## MINUTES OF PROCEEDINGS

THURSDAY, December 1, 1949.

The Special Committee appointed to examine into the operations of the Atomic Energy Control Board met at 11.30 a.m. The Chairman, Mr. McIlraith, presided.

*Members present:* Messrs. Breithaupt, Bourget, Gibson (*Comox-Alberni*), Green, Kirk (*Digby-Yarmouth*), Low, McCusker, McIlraith, Murphy, Pinard, Stuart (*Charlotte*), Winkler.

*In attendance:* Mr. J. L. Gray, Chief of Administration, and Mr. T. W. Morison, General Superintendent of Administration Services, Atomic Energy project at Chalk River.

Mr. Gray was called and examined. He was assisted by Mr. Morison who also answered questions.

Before the witnesses retired, a vote of thanks for their attendance was moved by Mr. Green and conveyed to Messrs. Gray and Morison by the Chairman.

On motion of Mr. Bourget.

*Ordered*.—That 500 copies in English and 200 copies in French of this day's Minutes of Proceedings and Evidence, be printed.

On motion of Mr. Low, the Committee adjourned to meet again *in camera* at 11.30 a.m. on Monday, December 5.

MONDAY, December 5, 1949.

The Special Committee appointed to examine into the operations of the Atomic Energy Control Board, met *in camera* at 11.30 a.m. The Chairman, Mr. McIlraith, presided.

*Members present:* Messrs. Breithaupt, Brooks, Coldwell, Bourget, Gibson (*Comox-Alberni*), Green, Kirk (*Digby-Yarmouth*), Low, McCusker, McIlraith, Stuart (*Charlotte*).

*In attendance:* Dr. C. J. Mackenzie, President, and Mr. G. M. Jarvis, Secretary, Atomic Energy Control Board.

A number of matters coming under the scope of the Committee's Reference were discussed with Dr. Mackenzie.

On motion of Mr. Coldwell,

*Resolved*.—That a Subcommittee of three be appointed by the Chairman to act with him in the drafting of a report for the House.

The Chairman designated Messrs. Coldwell, Gibson and Green to act as members of the Subcommittee.

The Committee adjourned to the call of the Chair.

WEDNESDAY, December 7, 1949.

The Special Committee appointed to examine into the operations of the Atomic Energy Control Board met at 11.30 a.m. The Chairman, Mr. McIlraith, presided.

*Members present:* Messrs. Breithaupt, Brooks, Coldwell, Bourget, Gibson (*Comox-Alberni*), Green, Kirk (*Digby-Yarmouth*), Low, McCusker, McIlraith, Pinard, Stuart (*Charlotte*).

On behalf of the Subcommittee appointed on December 5, the Chairman submitted a draft of the Committee's First and Final Report to the House.

The said Report was considered, amended and adopted as amended.

The Chairman expressed his appreciation of the energetic and active cooperation he had received from all members of the Committee, and Mr. Coldwell conveyed to the Chairman the congratulations of the members for the able manner in which he had presided over the activities of the Committee.

The Committee adjourned *sine die*.

R. ARSENAULT,  
*Clerk of the Committee.*

#### ERRATA

1. On page 72 of the printed evidence, first line of the second last paragraph, insert the word "not" between the words "would" and "like", the corrected sentence to read: "I think we were far afield but I would not like to say that all matters of secrecy are out of order".
2. On page 35, line 6, for the word "source" substitute the word "destination".

## MINUTES OF EVIDENCE

HOUSE OF COMMONS,  
December 1, 1949.

The Special Committee appointed to examine into the operations of the Atomic Energy Control Board met this day at 11.30 a.m. The Chairman, Mr. G. J. McIlraith, presided.

The CHAIRMAN: Gentlemen, we have a quorum. There are two preliminary matters which I would like to discuss now. In the proceedings and evidence, volume No. 4, of November 24th, in the remarks of the chairman at the bottom of page 72 the word "not" in the first line has been omitted. The evidence reads: "I think we were far afield but I would like to say that all matters of secrecy are out of order—" and what I said was "I think we were far afield but I would not like to say that all matters of secrecy are out of order."

I have checked the copy which went to the printers and I find the word "not" was included in that copy and that omission of that word is a printer's error. I should like to have the correction made on the record.

The second matter is that the business of the House of Commons appears to be proceeding rather rapidly. I thought that in view of that situation, I would try to arrange a meeting for Monday morning at which Dr. Mackenzie can be present. Dr. Mackenzie will be back on Sunday sometime and, if it meets with your wishes, I can confirm the date today and arrange the meeting for Monday morning.

MR. BREITHAUP: What time Monday would you suggest we meet?

The CHAIRMAN: 11.30 a.m.

Agreed.

It will be a meeting in camera with Dr. Mackenzie in attendance.

We have here this morning Mr. J. L. Gray, Chief of Administration of the Chalk River project, and with him, Mr. T. W. Morison, General Superintendent of Administration.

Mr. Gray is prepared to go ahead with the evidence just as you wish to question him, but I did tell him that our interest would primarily be in the village and the housing end of the operation. Perhaps we could start with Mr. Gray.

**Mr. J. L. Gray, Chief of Administration of Atomic Energy project, Chalk River, called:**

MR. PINARD: Perhaps Mr. Gray has a prepared statement and after he has given that we can ask questions.

The CHAIRMAN: Mr. Gray has not prepared a statement but he has notes.

MR. BOURGET: Can he give the setup of the village as far as construction is concerned?

The CHAIRMAN: Yes, he can do that.

The WITNESS: Mr. Chairman, I will just follow these notes and try to review the whole structure of the village. I presume there will be questions after that.

The original design was carried out under the direction of quite a group of people. It included representatives from N.R.C., D.I.L., the Department of Munitions and Supply, and Professor John Bland of McGill University. The structures at the village consist of family dwelling units which you saw, various wartime housing units, some duplexes and apartment units, and a number of single dwelling units. The total number is 442 for the married units, of which 93 are wartime sixes and 132 are wartime fours that we moved in from Nobel and Arvida between 1945 and 1947. They were not constructed at Chalk River but were merely re-erected. Some ten duplex units, 3 single units, were also moved in from Nobel but we have actually constructed 68 detached units, erected six Faircraft houses—the aluminum houses—94 duplexes and 36 flats. Those represent construction on the project, which gives us a total of 442 family dwelling units for married personnel.

The single accommodation consists of the staff hotel which you saw, and which has 182 rooms with 200 beds. That hotel was built on the site. The twelve dormitories were moved from Brownsburg and re-erected. They have 177 rooms and 243 beds. They are occupied by junior male salaried staff, prevailing rate employees, and the Crawley McCracken staff who do the catering. We also have some accommodation which you may have seen on the top of the hill there—it is a construction camp built by prisoner-of-war labour and is used mainly by contractors who come in to do construction work. In our contract agreements we agree to give sleeping accommodation at a fixed rate to the contractors—the arrangement is included in the bidding process.

MR. BOURGET: Those units are not suitable for your own personnel?

THE WITNESS: No, they were built for construction reasons and are very very temporary in nature and not in too good shape. They are, however, suitable for a construction camp. One of those units we have taken over and use as a community handicraft shop. It is used mainly by the boat building club and the woodworking people. The shopping centre which you saw consists of a post office, an office for Crawley McCracken, the caterers, a drug store, an A. & P. store, a T. Eaton Company store, a beauty shop, a barber and valet shop. Those were all built in 1945 and 1946. We also have the town office and maintenance facilities, including the heating plant, the power station, the sewage disposal plant and the recreation centre.

*By Mr. Breithaupt:*

Q. Is there a filtration plant in connection with the waterworks?—A. No, we do not filter the water but it is screened and chlorinated.

Q. Is it from the Ottawa river?—A. The water is from the Ottawa river. It is inspected by the government and we have grade A. water.

MR. WINKLER: Is the sewage disposal unit a plant by itself?

THE WITNESS: It is a plant by itself. It has what we call Imhoff tanks and we treat all the sewage before putting it into the river. It is a safe and modern plant.

The school which you saw consists of ten rooms and there are grades 1 to 8. The hospital which you were not in but which you drove by has accommodation for 13 adults, 6 babies, and 5 children. The babies and children take up two rooms.

*By Mr. Pinard:*

Q. There is an addition being built on now?—A. In 1950 we expect to have doubled the capacity. We will not finish the addition this year but we hope to have it finished next year.

Q. Can you tell us who is in charge of the hospital?—A. Dr. W. E. Park is in charge of both the plant and the village hospital.

Q. One of the doctors is supposed to be leaving the project fairly soon?  
—A. That is Dr. Park.

Q. Do you know who is going to take his place?—A. The appointment has not been made. We know that it is a Dr. Taylor from Toronto. He is a research man and he is expected to take Dr. Park's place.

Q. I was informed that Dr. Park is leaving for the States. I do not know where he is going but I believe it is to San Francisco?—A. Minnesota.

Mr. BOURGET: Is he the one who was working with Dr. Cipriani?

The WITNESS: No.

Mr. PINARD: He is attached only to the hospital?

The WITNESS: Yes, he is a medical doctor and he is being replaced.

The CHAIRMAN: He had no part of the responsibility for research work.

Mr. BREITHAUPT: He showed us around the plant hospital, did he not?

The WITNESS: Yes.

Mr. KIRK: The addition you are putting on the hospital is going to mean that it will have double its present capacity?

The WITNESS: Yes, that is right. There is one matter I have not mentioned and that is that our hospital serves an area between Pembroke and Mattawa where there is no other hospital. Ours is the only hospital in that whole stretch of country and we get about 25 per cent of our patients from outside of the village.

*By Mr. Stuart:*

Q. Have you modern equipment in the hospital?—A. Yes, we can do practically anything. We have a good operating room and good x-ray facilities.

Q. Even though it is small you have the equipment?—A. Yes.

Mr. BOURGET: And nurses?

The WITNESS: Yes, we have nurses.

*By Mr. Low:*

Q. Does the hospital come under the provincial Department of Health as far as grants are concerned?—A. No, it does not. We get no grant at all for the hospital itself; it is not a public hospital.

Q. But you are taking into the hospital patients from outside?—A. Yes, if it is not full of Deep River patients.

Q. Why should you not qualify for a provincial grant?—A. It is a matter of policy which I am not able to settle. I think I better leave the statement that way. We have some very good reasons for our position but it is a matter of policy for the control board.

Mr. BREITHAUPT: Would it not be more helpful, Mr. Chairman, if Mr. Gray were to finish his statement? We are anxious to ask questions I know, but perhaps it would be better to let him finish without interruption.

The CHAIRMAN: It is a matter for the committee to decide. Mr. Gray was listing the structures in the village.

The WITNESS: I could finish it quite quickly. There are only a few more. In addition to the hospital there is the cafeteria, a separate building which services the dormitories, and the cafeteria in the staff hotel where you had your breakfast.

There are some other miscellaneous buildings such as the veterans hobby building, entirely built by veterans using their own labour and materials; the yacht club; and the radio club. The tennis court is used as such in the summer but we are now putting up boards for a rink so that area does double duty. Then there are the play grounds. We have garages which are not attached to

the houses but are six car units located strategically around the village. All the design of the new structures at the village is done by our own architectural design group. We do our own designing at the plant and in the village. That pretty well covers the construction.

*By Mr. Breithaupt:*

Q. You did not mention the gymnasium?—A. I mentioned the community centre.

Q. Can you enlarge on the activities that take place there? We are very interested.—A. The community centre has a coffee shop, a bowling alley with six alleys, an auditorium that seats 500, and an assembly hall which seats 200. There is a small library and other miscellaneous facilities such as the small handicraft rooms.

Mr. MURPHY: If we knew what other subjects were coming up for discussion we might consider them first and then go on with the details.

The CHAIRMAN: Mr. Gray has been following a pattern or list of structures about which we might want to have some information regarding personnel and occupancy; and then there is the question of meals, of administration of the different parts of the village such as the hospital and the staff hotels, dormitories, and the matter of rentals and so on.

Mr. MURPHY: Is he going to take up the financial picture?

The WITNESS: I have the information here.

The CHAIRMAN: Yes. Mr. Gray has the information which affects each part of the village. For instance, the ordinary house rentals, the question of meals, transportation, schools, and so on.

The WITNESS: It is just a matter of what questions you wish to ask.

Mr. PINARD: Are you dealing with schools as a separate matter? I heard you mention one school—what type of a school is it? We visited it and I gather that it is just a primary school?

The WITNESS: Grades 1 to 8.

Mr. GREEN: Could we not have Mr. Gray's full explanation and then ask questions?

The CHAIRMAN: All right.

Mr. GIBSON: Would it save time if we dealt with those things which are uneconomical?

The CHAIRMAN: I think we should be able to cover all of these matters within the next hour or so. Would it be convenient if we go on with occupancy?

Agreed.

The WITNESS: Of the 442 family dwelling houses we do have to allow a bit for others, outside of the N.R.C. personnel. There are 395 houses occupied by our people, 20 by treasury, 24 by village services, and 2 by the caterer. We have to provide about 50 houses outside of those for our own group. The dormitories have a similar ratio with the exception that Crawley McCracken have two of the 12 units which they take over completely. Meals are provided at the staff hotel by the hotel cafeteria, and there is the dormitory cafeteria. Both are under one contract with Crawley McCracken Limited. The operation is on a straight cost plus contract—cost plus 8 per cent. The Council pays the cost.

The hospital operated last year at a deficit of roughly 50 per cent. The figures to October 31st of this year have indicated a loss of 30 per cent. Our revenue is better, I think mainly from the dental group which has been reorganized and is showing a much better picture. We feel that there will always be a loss in operating the hospital under present conditions. I do not know

how much you want of this information—I have a whole page of it concerning rentals in the village, but they are based primarily on wartime housing rates. The rates are scaled up to a maximum rental, for Dr. Key's house, of \$65 a month.

*By Mr. Breithaupt:*

Q. What does that include?—A. Just rental.

Q. Does he heat the house himself?—A. He heats it and he has to pay for power and for anything that has to be done to it. If he wants his storm windows washed and put on for instance, there is a set scale of 80 cents a window. We have a separate charge for everything.

Mr. Low: Is he charged for water?

The WITNESS: Water is free. I have the details of the rentals if you wish them.

Mr. PINARD: They pay no taxes?

The WITNESS: No taxes.

*By Mr. Breithaupt:*

Q. If \$65 is the top level what is the rate for the low income groups?—The wartime four is the smallest unit and that is \$22. It has no basement.

Q. What is the rate for the ones where you have put in basements?—A. \$35 with a basement.

The CHAIRMAN: Perhaps we could clear that up a little; the ones where you are putting in basements are wartime sixes?

The WITNESS: Yes, wartime sixes.

Mr. BREITHAUPT: And they are \$35?

The WITNESS: With the basement.

*By Mr. Bourget:*

Q. There is no central heating?—A. In the ones with basements there is central heating but in the other wartime houses they have stoves in the kitchens and little heaters in the living rooms.

Q. Is it your intention to put central heating in all those houses?—A. We propose to continue putting basements under wartime six houses—those are the ones with the upstairs and six rooms, but we are not sure whether it is economical to put basements under the wartime fours.

Mr. PINARD: Would it not cost more to do that than to build a new house?

The WITNESS: Well it costs more than the value of the house and we feel that it might be better to replace them with better houses.

*By Mr. Murphy:*

Q. What does it cost to put in a basement?—A. About \$4,000 but that includes, in addition to the heating system, all of the new plumbing and heating required.

Q. It is hot air?—A. Yes.

Q. How big is the basement?—A. Perhaps Mr. Morison could give us that?

Mr. MORISON: The house is 24 feet by 28 feet.

*By Mr. Murphy:*

Q. And to put in a basement costs \$4,000?—A. We raise the house and put the whole basement under it and add an addition about 12 x 12 feet. We equip the house with the furnace, hot water, laundry tubs, and all the new plumbing that is required.

Q. What sort of hot air is it?—A. An ordinary coal, hand fired hot air furnace.

Q. Pipeless?

Mr. MORISON: No, it has about four ducts going to the basement and a cold air return.

Mr. MURPHY: I think that is a problem that should be discussed, Mr. Chairman. I am wondering about this \$4,000 item for digging out the basement. The heating unit would not cost over \$250.

The WITNESS: Are you asking the heating cost for a year?

Mr. BREITHAUPT: What is the cost of the heating unit?

*By Mr. Murphy:*

Q. \$300 at the most?—A. I think that is low. The contract for this work was let as a normal contract and it went out to about ten contractors. The contractors were given the specifications and we let the contract to the lowest tenderer. The two lowest tenders were within \$5,000 on a \$100,000 order so it is quite a competitive bid. We feel that we are getting value for our money.

Q. These are just temporary houses, or at least they are houses you had moved there and they are not of a permanent nature?—A. They are houses that we moved there.

Q. The point I am making, Mr. Chairman, is that I am just wondering whether the expense is warranted for that particular type of house. Your soil there is sandy is it not? Do you use machines to the the excavating?—A. Yes.

*By Mr. Stuart:*

Q. Do you move the house off its site?—A. No, straight up.

Q. Then how can you use machines?—A. They use a shovel that goes in on a slant.

Mr. BOURGET: You cannot do work with a bulldozer when the house is there. You must dig underneath; you cannot use a bulldozer, although the bulldozer would do all the work in half a day?

The WITNESS: It is not a bulldozer, it is a shovel.

Mr. BOURGET: Oh.

The WITNESS: It is a shovel with a scoop on the front of it. We have added to those houses a back portion in order to get the stairs down the basement. That back portion is about 12 feet by 12 feet.

*By Mr. Murphy:*

Q. That is included in the \$4,000?—A. Yes, there is a twelve by twelve basement in addition to the basement under the main part of the house.

Q. Is your basement only twelve by twelve?—A. No. In the house as originally constructed there was no allowance made for stairs leading to the basement, so in order to get down there without cutting up the house, we put this back porch on which is acting as a sort of an additional room.

Q. Tell me this, Mr. Gray—and this is not the subject of criticism—all we want to do is to solve any problems that you have—is it your policy to continue putting basements under that type of house at that price?—A. Under wartime sixes at that price we feel it is good business but on wartime fours we do not know; we are not putting any basement under wartime fours.

Q. And you have a lot of wartime fours?—A. Our big majority is wartime fours. We have one hundred and thirty-two wartime fours and only ninety-three wartime sixes.

Q. How many basements have you put in so far?—A. Twenty-five. And we will not put basements in all of them due to terrain conditions, but I would guess in at least eighty-five of the ninety-three we would recommend putting basements under.

Q. Have you the cost of the basement in the houses you are now building?—A. No, I have not these figures separate.

The CHAIRMAN: I think, perhaps, there is one item I might clear up. There seems to be a question as to the cost of the basement at \$4,000. I think the picture is a little different from that. Four thousand dollars is the over-all item of cost and it turns out to be quite a different house after that \$4,000 is spent. In addition to the basement there is a different type altogether of heating plant and there is this small addition at the back.

Mr. BREITHAUPT: And some additional plumbing.

The CHAIRMAN: A furnace and additional plumbing.

Mr. BREITHAUPT: That is important: You provide plumbing. What is the cost of plumbing included in the \$4,000 figure you mentioned?

The WITNESS: I have not the details.

*By Mr. Murphy:*

Q. You stated that a heater tank and laundry tub also were installed?—A. Yes, and a furnace. And all the piping has to be changed in the house. There is new piping from the bathroom which has to be reconnected, and from the kitchen also.

Q. Are the bathrooms on the second floor?—A. No, on the first floor.

*By Mr. Stuart:*

Q. How many bedrooms are there upstairs?—A. Two.

*By Mr. Bourget:*

Q. Is not the greatest expense for that type of work the excavating costs?—A. No, we feel that without doing this we would have to spend \$500 to \$1,000 on repairs. Dry rot is setting in and that is an important problem.

*By Mr. Murphy:*

Q. After the basement is put under those houses what do you expect their life will be?—A. I am sure that twenty-five years from now they will still be occupied and quite good.

*By Mr. Pinard:*

Q. What are you going to do about those where you cannot dig cellars as you say, on account of terrain condition?—A. When the maintenance becomes too much we will have to tear them down.

*By Mr. Murphy:*

Q. I noticed that some contractors are doing work there, is that being done by contract, by tender?—A. All the work done by contractors is done on a straight tender. We use the normal method of issuing contracts and calling tenders.

*By Mr. Pinard:*

Q. How do you invite the contractors to tender?—A. We use the newspapers in advertising for tenders.

*By Mr. Murphy:*

Q. Are you building some of the larger houses now?—A. We are building larger houses because our families are housed in such a large proportion of houses which are small ones.

Q. The ones you are building—are they pretty much the same in size and design?—A. Yes, we just let a contract last year for forty identical houses.

Q. How many bedrooms are there in them?—A. Three bedrooms.

Q. What size would these houses be?—A. Twenty-eight by twenty-two but they have an upstairs.

*By Mr. Murphy:*

Q. What is the cost of those? Are they heated as well?—A. They are heated by hot air. The cost is approximately \$12,000 of which approximately \$2,000 is for services, that is the sewer, water and electrical services, roads that we have to put in and landscaping.

*By Mr. Stuart:*

Q. What interest rate do you figure on that money advanced for the construction of these houses on which you are trying to figure out an economic rental?—A. We do not work on capital amortization of the building at all.

*By Mr. Murphy:*

Q. What is the cubic footage of those houses? Can you tell us?

Mr. MORISON: The cubic footage of that particular house now is, I think, about 16,000.

The CHAIRMAN: I might say that the figure of \$12,000 represents the cost of the project, the unit cost of the additional houses, but not the cost of the house alone. It includes the cost of the house plus whatever has to be done by way of installing the water and sewerage, roadways and so on.

*By Mr. Bourget:*

Q. How much would it be if you took that figure of \$2,000 out?—A. About \$10,000.

Q. For about 16,000 cubic feet. Would this house be insulated?—A. Yes, all insulated and treated for vapour transmission.

Q. That is not bad—sixty cents a cubic foot.

Mr. BREITHAUPT: Especially up that far where they have to haul in all materials.

*By Mr. Stuart:*

Q. Yes, in that particular area. I remember you stating it was rather difficult to get contractors to come in as it is quite a distance from cities. What would be the difference between a normal rate in a city or town as compared with a rate in Chalk River? I mean what variation would there be in their contract rates, in your estimation?—A. It is not so difficult now to get contractors to come in there. We are opening up a contract today and we expect there will be ten tenderers. It is becoming much easier now because the contractors can get labourers. I would not like to estimate how much more it would cost.

Q. But you do know it costs more?—A. We feel it costs more to do work up there due to the location of the area.

*By Mr. Bourget:*

Q. I do not see that it costs more because for a 16,000 cubic feet house you pay \$10,000. That works out at about sixty cents per cubic foot and I think in general an over-all price of sixty cents per cubic foot is quite reasonable.

*By Mr. Murphy:*

Q. Are those houses of frame construction?—A. Yes.

Q. And is there siding paper on the outside?—A. Siding, building paper, and we are using asbestos shingles.

Q. And what are you using on the inside?—A. Plasterboard, treated.

Q. Not plaster?—A. No, gypsum which is a standard Central Mortgage type of housing material for inside.

Q. And what kind of flooring?—A. Hardwood floor.

Q. Double flooring?—A. Yes.

Q. What does this \$2,000 include?—A. Sewerage, water, electrical service, roads, landscaping.

Q. That is all charged up in each unit?—A. That is charged up in a straight contract.

Q. Have you broken that down?—A. We have it broken down in the contractor's tender, but I do not have it here.

Q. But the contractors who are building the houses, are they interested or have they anything to do with these other services?—A. The contractor supplies them according to the contract.

Q. Suppose you are awarding a new contract, a contract to build homes, does the contractor include in his price the building of a road, the installation of the water and sewerage, the landscaping and all the electrical work as well? He does the wiring, does he?—A. He does everything; it is all in the contract. Of course, he sublets to sub-contractors.

Mr. STUART: But he is responsible.

*By Mr. Murphy:*

Q. The point I am making is whether or not some of these other items should be included in the bookkeeping? For instance, does the electrical work, include fixtures, too?—A. Yes, that is the complete house ready to move into.

Q. Well, the fixtures would not be very much, would they?—A. A minor item.

Q. The installation of the water, connecting up the sewerage,—does that mean the complete sewer?—A. Yes, the complete sewer constructed down the street.

Q. On this one street would there be room for twenty-five or fifty more houses that could be built to cut down this \$2,000 per house for services?—A. No.

The CHAIRMAN: Perhaps, I should make it clear that the figure given represents the unit cost for the whole group of houses, including everything connected with the adding of forty houses to the site. It includes the whole cost of the development, the additional streets required, the laying of the sewer, the supply of water, and so on. It does not include the land which is owned by the project.

*By Mr. Murphy:*

Q. Is your rent based on the \$12,000?—A. Yes.

Q. And what would these units rent for?—A. They rent for \$40.

*By Mr. Breithaupt:*

Q. Are they for single occupancy?—A. Yes.

Q. Those are not the larger houses we saw?—A. When I say it is based on the \$12,000, I refer to the overall rental picture; that \$40 pays for a certain amount of space compared with rental we are getting for other houses at the present time. For instance, we have houses with three bedrooms, which are renting at \$45. We have four bedroom houses which are renting at \$50 and some at \$55 and \$60, so the rental we are getting for these new houses is fixed in comparison with the rentals we are getting now.

*By Mr. Pinard:*

Q. There is no garage furnished with these houses?—A. No.

*By Mr. Stuart:*

Q. In the cost of installation of water and sewerage, would that include hydrants for fire protection?—A. Yes, that includes everything, including street lights.

Q. Do you install a main sewer?—A. Yes.

Q. There would be a main sewer with all individual connections to the different houses?—A. Yes.

*By Mr. Bourget:*

Q. You put all those in your over-all cost?—A. Yes, that \$12,000 includes everything.

*By Mr. Murphy:*

Q. Has any building been done on a cost-plus basis? What was your experience in that type of contract?

Mr. MORISON: All the initial houses built under D.I.L. were built on a cost-plus contract by Fraser Brace Construction Company, but conditions at that time were extremely difficult, they could not get workers in there at all unless their full board was paid.

Q. When was that?

Mr. MORISON: That was in 1944, 1945 and 1946.

*By Mr. Kirk:*

Q. It seems to me that anyone who has had any experience in building in the last few years would be of the opinion they have done exceptionally well to get the type of houses they did for that price, and I would think there are more serious problems for us to discuss at the moment.

The CHAIRMAN: Perhaps, I could indicate one of the problems: the question of administration of the village, the administrative authority, and how it is handled. That is a bit of a problem.

*By Mr. Breithaupt:*

Before you leave the cost of building, Mr. Chairman, I think if you are going to discuss the over-all picture it should be remembered that the hospital is included in the cost of buildings there, and apparently the entire cost of all of those buildings comes out of the grant to National Research. There is a big question involved there in connection with the hospital. We saw the building going on there, and I understand it was not possible to complete it because of the fact there were certain impediments in the way of financing due to the method of financing through National Research. I think we might give consideration to that. It seems too bad that that hospital could not be completed under the circumstances outlined by Mr. Gray at the village.

Mr. PINARD: I am wondering if the project could not receive assistance from the National Health and Welfare department on their plan to help in building hospitals. I would think that the hospital there should be eligible for that type of assistance.

*By Mr. Low:*

Q. That was exactly the reason I was questioning you whether this hospital came under the supervision of the provincial health department because it is only through them that these grants are made.—A. As I said, it is not a public hospital and the question is now under consideration, but I would not like to state the policy on that.

*By Mr. Breithaupt:*

Q. Would you care to comment to the committee on the situation as it exists in connection with the hospital and the completion of the work?

The CHAIRMAN: Perhaps you could leave that hospital question off the record, just the reason for the delay in completing construction. If that is left off the record Mr. Gray can answer.

(Discussion off the record).

*By Mr. Green:*

Q. One thing that concerns me is whether you have ample accommodation to retain your staff. The conditions I found were excellent but I was just wondering if you are unable to keep some of your staff?—A. We have lost people because they were not satisfied with the accommodation. We have only a certain number of the larger houses and we are building as many as we can.

Q. How much accommodation are you short of now?—A. I think we could use fifty more houses immediately and we need an addition to the staff hotel. We feel that some of the accommodation in the staff hotel should be altered from these single occupancy cubicles with toilet facilities down the hall, to something more like a single self-contained apartment for some of our well known research men who are single and who would like to have a small apartment. We have none of that type of accommodation available but we are thinking of a new type of staff hotel for next year which will have a few apartments of that type. We do occasionally lose people because we have not got good accommodation.

*By Mr. Pinard:*

Q. Has there been a steady increase in the personnel?—A. Yes.

Q. Ever since 1945?—A. Yes, it is going up continually.

*By Mr. Murphy:*

Q. The fifty houses you mentioned—is that the minimum you think you should have?—A. I think we should have fifty immediately plus a staff hotel.

Q. Besides the staff house you were talking about?—A. Yes.

*By Mr. Green:*

Q. It seems to me that enters into the whole picture of cost and everything else; you have to have accommodation that is good enough to enable you to keep these experts there.—A. People also leave because of the location. It is a very nice place but it is not a city; it is a country rural area that we try to keep as nice as we can, but some people do not like living there and do not stay.

*By Mr. Pinard:*

Q. How about the school problem there? Have you lost some of your personnel on account of that problem? You have no high school, and I was informed that this was something that was definitely lacking; that you should have a high school as soon as possible.

Mr. MORISON: That is correct. I would not say we have actually lost any senior personnel because of no high school being there, but some are thinking seriously about it and when an offer comes up for a job in the city it might well be a deciding factor for that individual.

*By Mr. Green:*

Q. When are you going to build a high school?—A. We have it in the estimates for next year.

Mr. MORISON: We have only thirty-five pupils going to high school at the moment and to build a high school which would compare favourably with the one at Pembroke would be quite expensive.

*By Mr. Murphy:*

Q. Would you anticipate a great many more going to high school?—A. Yes.

*By Mr. Pinard:*

Q. You have two schools there?—A. Yes, a public school and a separate school.

Q. You have your separate school?—A. Yes.

Q. Do you know how many pupils go to your separate school?—A. There are approximately eighty pupils from the village of Deep River going to Wylie separate school.

Q. How many to the other?—A. Two hundred.

*By Mr. Murphy:*

Q. Are there many from outside the village going to the other school?—A. The Wylie separate school in fact belongs to the Wylie municipality or the Wylie separate school area, and one-third of the pupils there comes from outside the village.

Q. Are you able to get a high type of teachers?—A. We feel we have a good staff at the moment.

Mr. GREEN: You have the best record in Canada.

Mr. BREITHAUPT: That is for the birth rate.

Mr. MORISON: I do not think that is a correct statement. Our people are a good cross section of the community. We have a lot of scientific people living there but we also have a lot of tradesmen and people who, in an ordinary community, would be average citizens.

*By Mr. Pinard:*

Q. You have no taxes there?—A. There is no school tax. We pay all of the school expenses but the provincial government pays fifty per cent by provincial grant of our total cost of operation of the two schools. We pay a pro-rata cost of operation to the separate school based on the number of pupils who are attending.

*By Mr. Murphy:*

Q. Did they assist in the construction or is that just for maintenance.—A. The separate school?

Q. I mean did the provincial government assist in the construction of your school?—A. Just as far as the operation is concerned. The capital cost is ours.

*By Mr. Pinard:*

Q. How do you get your teachers? Do you get them through the provincial government or directly?—A. We advertise the same as we do in recruiting all staff, and interview applicants.

Mr. MURPHY: In your construction of a new school, would you not be entitled to a provincial grant?

Mr. MORISON: Again, that is a question between the federal and provincial governments. The provincial government today pays fifty per cent of the operating cost, but they do not pay on capital cost of the construction of schools.

Mr. GREEN: I do not suppose that anybody who occupies a house up there is getting wealthy because of the rent they pay. As a matter of fact, a great many of those men could be earning much higher salaries in other places.

The CHAIRMAN: I think that describes the situation pretty well. The rent is related directly to the cost of operating the project and you can, I suppose, change the rent materially if you change the level of salary on the project materially. It is not possible to wholly separate the two.

*By Mr. Pinard:*

Q. In establishing the rent there did you take into consideration at all the wages earned, or how do you come to establish the rents?—A. They are established originally on the basis of the original wartime housing plan; they were considered wartime houses, houses of the wartime type, and we increased the rent as we felt we should for the accommodation we built.

*By Mr. Green:*

Q. No one owns his own house?—A. No one owns his own house.

*By Mr. Low:*

Q. I presume as your employees progress up the scale of salaries, they are free to get or apply for better housing for which they can pay?—A. That is right. There are two reasons to move anyone from a wartime to a bigger house, either a large family or his position in the salary range.

*By Mr. Murphy:*

Q. Is your income from the business establishment self-sustaining?—A. The income from particularly the T. Eaton Company, is self-sustaining. We have a very good contract with them. The other establishments in some cases are self-sustaining and in some cases are not. The bank is not.

*By Mr. Pinard:*

Q. What about the A. and P.? Is that self-sustaining?—A. That is self-sustaining.

*By Mr. Murphy:*

Q. What is your big bug bear there? At the beginning it was to get anybody to go in there. What is it now, I mean from a profit and loss statement? I think that is what we are interested in.—A. The cost of operation, mainly in the maintenance of the village. We have about one hundred personnel employed doing nothing but maintaining roads, streets, ditches, houses, sewer lines, staff hotel, dormitories.

*By Mr. Bourget:*

Q. And you also have a staff as the manager of the town?—A. That is right. The operating charges are quite heavy. The things that we break even on—we do not make money—are ice, and coal, power. Water, of course, we lose on.

*By Mr. Breithaupt:*

Q. You can hardly compare this with a town, a village which is municipally run with a council and a utilities commission and all that. These people do not pay any taxes, of course.—A. The real reason, I feel, we cannot operate the village at a profit or even break even is that we have no industrial or commercial tax; and from a survey that I have made I found that in communities of our size which have income from taxation, forty-five per cent of it comes from industry or commercial establishments. We have none of that at all so we feel that is the National Research Council is operating the project and they have to put in a certain percentage which is about twenty, it is not out of line.

*By Mr. Murphy:*

Q. Does the staff hotel pay any tax?

*By Mr. Low:*

Q. How do you operate the community centre? On a fee or membership basis paid by the people who take advantage of it?—A. There are forty-four clubs in the village.

*By Mr. Bourget:*

Q. Forty-four clubs?—A. Different clubs.

*By Mr. Murphy:*

Q. Have you with you the total income that you get from any source in the village as well as your expenditures?—A. The expenditures for 1948-49 were \$836,913.37. Revenue was \$572,931.29. There was a deficit of \$263,982.08.

Mr. PINARD: Is that on the recreation alone?

The WITNESS: On the whole village.

Mr. GIBSON: That is for 1,200 employees?

The WITNESS: 1,200 employees at the plant, and about 2,000 residents at the village.

*By Mr. Low:*

Q. Can we go back to the community centre. Mr. Gray started to tell us that there were about 40 different clubs. What do they do?—A. They are mainly social and educational groups. If they use space in the community centre we charge them for about the cost of power and heating and in turn they charge their members from a 25 cent membership fee up to \$5 a year, which I think is the maximum, and that is for the tennis club. The gun club membership is 50 cents, the art club is 25 cents I think. The bowling congress pays for itself. They are charged \$500 a year and with that we are able to resurface one or two alleys a year.

Q. In making your charges you try to look after maintenance and replacement costs?—A. That is right.

Mr. BREITHAUPT: What about the boating club, is that run separately?

The WITNESS: It is run entirely separately by yacht club enthusiasts.

Mr. MORISON: They pay \$1 a year.

*By Mr. Breithaupt:*

Q. Do you give them any assistance in building those dinghies?—A. We have given them the area in the construction camp up on the hill.

Q. And the use of the machines?—A. They have their own machines. Nearly all the work is handwork but the woodworking club has that area. The community association has given the woodworking and the boating club nearly all of that area.

Mr. STUART: They do all their own work?

The WITNESS: They do all their own work; they buy material and sell it to themselves.

Mr. PINARD: You have a motion picture theatre?

The WITNESS: Motion pictures are shown in the community centre. We take the chairs out or put them in as required, and the operation is conducted on a straight percentage basis.

*By Mr. Gibson:*

Q. The deficit you mentioned works out to about \$300 per employee?—A. Yes.

Q. Has it ever been explained to the people up there that, although they may be only receiving \$200 a month in cash, they are actually getting \$225 in cash and services?—A. Yes, but the reply is that they must get out of there at least once a month and buy clothes and so on in Ottawa, and that costs them more than \$25.

Q. Yes, but that applies to everyone living in pulp towns or mining towns?—A. It is a typical rural community. People cannot live there all the time; they have to get out. We feel that the subsidy which they receive in the matter of rental cost is used up in other ways.

Mr. PINARD: Do you consider that you have as much service there as there would be in an ordinary rural community?

Mr. BREITHAUPT: I would say that the service provided is much better than in the average rural community.

The CHAIRMAN: You are trying to operate a community service for 1,200 employees but your revenue has to come from the housing end of it and none comes from the industrial end. If the village was able to collect rent from the buildings down at the plant then it would break even?

*By Mr. Murphy:*

Q. Is it not a fact that you always will have a definite fixed overhead which you cannot overcome? There is no hope of you ever having a surplus; that is one thing certain?—A. Yes.

Q. I was going to ask you if you had thought of some way of increasing your revenue without jeopardizing the interests of your employees?—A. Without going to commercial establishments where we could tax or obtain quite heavy rentals there is not much chance of getting a much increased revenue. Even if we put up our rents 20 per cent it would only mean an increase of \$23,000 a year.

Q. Speaking for myself, and I think the other members of the committee, I would not be interested in an increase of rents. I think, as you said a moment ago, that to operate a community like that, it is absolutely impossible for you to come out with a surplus?

*By Mr. Gibson:*

Q. Does the loss include the loss on the dining room?—A.—Yes.

Q. Then I think you are doing very well. I do not know of any industrial town of that size which runs a boarding house that can do better than you are doing?

The WITNESS: Do you know of any place running a boarding house which is breaking even on the meals?

MR. GIBSON: I do not think that is possible.

MR. GREEN: What form of self government do you have in the community?

The WITNESS: Very little. We tried it but since this self governing body had no funds we found that it did not work out. People lost interest entirely. We try to listen to the people in the community now and satisfy them, but there is no real self government except that for the school. The school is run by school trustees.

*By Mr. Gibson:*

Q. Has there been any request for a beer parlour or a beverage room up there?—A. Yes.

Q. It was not thought advisable to accede to the request?—A. The decision was not to accede to the request.

*By Mr. Breithaupt:*

Q. Is there a police force or anything like that?—A. The plant security force has a man on duty in the village. We operate the village police force with our security men.

Q. The same force?—A. The same force as we have at the plant.

MR. MURPHY: You have a fire department?

The WITNESS: We have a fire department which is also part of the plant fire department. We have a fire engine and two men on duty at all times.

*By Mr. Pinard:*

Q. Have you any idea of the number of employees who own their own cars?—A. I would say of the people living in Deep River that about 30 per cent have their own cars.

Q. They have to pay for garage facilities?—A. \$5 for a garage.

MR. STUART: You said 30 per cent of the employees owned their cars?

The WITNESS: 30 per cent of those who are living in Deep River.

MR. PINARD: The other employees have to use the bus?

The WITNESS: Most of the employees use the bus. They do not drive to the plant; they leave their automobiles at home.

*By Mr. Breithaupt:*

Q. We noticed the big buses up there; do you charge the employees for using those buses?—A. The charge is  $6\frac{1}{4}$  cents.

MR. MORISON: You are referring to the trip to the plant?

MR. BREITHAUPPT: I refer to the big buses that leave for the plant early in the morning. Do you charge for that service?

The WITNESS: They are standard street car rates— $6\frac{1}{4}$  cents to Deep River, and  $12\frac{1}{2}$  cents to Pemroke. We maintain the buses and the transportation but it is really a project function; the servicing and everything comes under the plant.

MR. MURPHY: You do not charge them to ride to Chalk River?

The WITNESS: Yes, anyone who rides on the bus is charged.

MR. BREITHAUPT: Do you lose money on that operation?

THE WITNESS: Yes, we lose money on that.

MR. GIBSON: Is it part of the over-all deficit you mentioned?

THE WITNESS: No, it is not included in the figure I gave you.

MR. BOURGET: Could you build a road directly from Chalk river to Deep river? At the moment you have to go around?

THE WITNESS: It has been considered but at the moment it is thought too expensive for the amount that we would save. The old original road is still there; the one that runs along the river. Mr. Green, Mr. Morison says that he can elaborate upon the matter of self government.

MR. GREEN: I would be very grateful. Outside of Vancouver there is a district known as University Hill which is on provincial government land. While the people do pay some taxes the area is run by the provincial government and there they have a school board made up of people elected from the residents. It seems to work very well. I was wondering if your school board is something the same.

THE WITNESS: The school board is properly elected; there are three school trustees. Two of them are elected by Deep river and one elected by the plant. I have here a notice from the deputy returning officer. These people are elected subject to approval by the provincial government. To date those whom we have nominated have always been approved. The school is run by a normal local group.

MR. MORISON: Initially we had a village council but it was very difficult for them to continue to keep the interests of the residents because they had no real responsibility. That situation worried us. The next step we took was to turn over to a committee, as much of the operation of the recreation as possible, and now recreation is pretty well run under the direction of a committee of residents. They are controlling body and have charge of the operation of the community centre plus all the activities there. In order to raise funds they operate a coffee shop which gives them a source of funds and the sense of responsibility we were talking about.

MR. PINARD: I wonder if Mr. Gray could give us any suggestions as to improving conditions there? After all, I think consideration of those matters is part of the work of this committee, and I would like to know what suggestions he has to improve conditions generally?

MR. BOURGET: That would help us in making our report.

THE WITNESS: We feel that the community is in pretty good condition but right now we lack some facilities. We need a church very badly—a community church. The Roman Catholics are well supplied with a church which belongs to the Wylie district. It has been there for years.

*By Mr. Pinard:*

Q. It is an old church.—A. Yes. Our community church, composed of all the Protestant churches, meets in the assembly hall in the recreation centre. It seats about 200 and it is becoming very much overrowded. That church is one structure which we require. We hope to get it built next year. We have an amount which will not build the whole church but will build the main structure and we expect the residents to complete it. It will be available to all groups, including Roman Catholics, if they wish to use it. There will be facilities in the basement for boy scout meetings and things like that. We also need some more houses.

Q. You mentioned that you needed about 50?—A. About 50 new houses would satisfy our immediate requirements. We need a new staff house and we need a new high school.

We will not get 50 houses, but we will get a lot of these things next year if our estimates are approved.

Mr. Low: What do you estimate is your over-all capital need for the things which you have just mentioned? Around \$1,000,000?

The WITNESS: A little over \$1,000,000. 50 houses will cost about \$600,000; the high school will cost at least \$100,000.

*By Mr. Pinard:*

Q. How about the hospital?—A. The hospital will cost another \$50,000, or a little over \$100,000 in total.

Q. The high school?—A. \$100,000.

Q. The church?—A. We hope to build the structure for about \$60,000.

Mr. BOURGET: What about the staff house?

The WITNESS: At least \$100,000.

Mr. PINARD: How about this road? Is it contemplated that you will build the shorter road?

The WITNESS: That is not in our estimates at all. We feel it is a big expense and not warranted at the moment.

Mr. BOURGET: The road can be used as it is now?

The WITNESS: No, only for fire patrol.

The CHAIRMAN: It is pretty rough country there. I do not know whether the members are familiar with it, but it is pretty rough.

Mr. PINARD: What is your estimate on the staff house?

The WITNESS: About \$100,000 would build what we need to satisfy our immediate requirements.

*By Mr. Bourget:*

Q. How many rooms would you have in that?—A. It would depend on how many we had with bath and kitchenette. At the moment it costs us about \$4,000 a room for the present type of accommodation, so it would be more than that; it would be nearly \$5,000 on \$6,000 a room, maybe \$10,000 a room if we put in bath and kitchenette.

*By Mr. Pinard:*

Q. Do you intend adding anything to your shopping centre?—A. Our program for next year is to add a part on to the Eaton's store, which will cost something between \$40,000 and \$50,000. We feel we should have, before very long, a hardware store and a sporting goods store. We have no space at all for that. We also need a theatre. We hope to get one next year through private enterprise—the theatre company we are negotiating with now. We may make a contract for them to build a theatre on our property at a rental rate. That would not involve any capital cost to us. We would get a rental.

*By Mr. Green:*

Q. Under what vote do you get the money for those capital expenditures? Is that under the Atomic Energy Control Board vote?—A. That is right.

Q. And you cannot move unless these amounts are voted by the house?—A. That is right.

*By Mr. Murphy:*

Q. Regarding the contracts for any of these capital costs, say for construction, who accepts those, who enters into the contract?—A. The National Research Council.

*By Mr. Bourget:*

Q. You have equipment also in the winter time for road maintenance?—A. We maintain all the roads winter and summer including both clearing of snow and maintaining of surface.

*By Mr. Pinard:*

Q. You do that yourself or do you get somebody to do it?—A. We do that ourselves with plant forces. It is part of the general maintenance group at the plant.

*By Mr. Murphy:*

Q. That is charged up to the plant and not to the village administration?—A. It is a charge that goes back against the village.

*By Mr. Bourget:*

Q. Is all the machinery paid for by the village?—A. No, not all, part of it belongs to the plant—the big grader, for instance—but all the small machinery belongs to the village.

The CHAIRMAN: Are there any more questions?

*By Mr. Kirk:*

Q. There is just one more question I would like to ask: Has the project been running long enough to give you an idea as to the repair and upkeep costs on wooden houses and aluminium houses?

Mr. MORISON: I would not like to pass an opinion on that. The roof on the aluminium type houses gave us quite a bit of trouble initially. The roofs were knocked down when they came in and we had to lift them up.

The CHAIRMAN: The aluminium house, in any event, is no longer in production.

*By Mr. Green:*

Q. What is the 'expected' life of the houses you are building now?—A. I am sure that fifty years from now, if the project is still going, people will be living in my house. It is a well built house the same as is built in Western Canada, and I know I lived in one in Winnipeg that was fifty years old, and there is no difference.

Q. You are really building permanent homes now?—A. Yes.

*By Mr. Murphy:*

Q. You did not experiment with any prefabricated houses?—A. No, other than those Faircraft aluminium houses.

The CHAIRMAN: Those Faircraft houses referred to earlier were the prefabricated houses made in Montreal.

Mr. MURPHY: What did that cost, Mr. Gray?

Mr. MORISON: Every house cost about \$3,300 f.o.b. Montreal. Putting it on the basement of the type we built ran the price up to \$7,500.

Mr. MURPHY: That would be just one floor and two bedrooms?

Mr. MORISON: Yes. The interior was rather a poor finish.

*By Mr. Green:*

Q. Has any thought been given to setting aside a portion of your land there for homes that might be owned by individuals? After all, the project is apt to be at Chalk River for a great many years, it will probably be permanent, and I was just wondering if there was consideration given to the long term view?

The CHAIRMAN: That is selling part of the land to employees for private homes?

MR. GREEN: Yes.

The CHAIRMAN: I think I can go so far as to say that has not been very seriously considered. So far, you see, there has been back of all this the question of security, controlling the area, and I think a fair answer to that question is that it has not yet been given any real consideration.

MR. MURPHY: That would also apply to leases. It is completely controlled.

The CHAIRMAN: It is completely controlled, yes.

*By Mr. Winkler:*

Q. Do any employees live on private property?—A. Yes. They are building now on the road adjacent to Chalk River, which is not our private property and some are building in Chalk River.

*By Mr. Pinard:*

Q. They are allowed to reside anywhere?—A. Yes, they are allowed to reside anywhere as long as they can get to the plant.

MR. GREEN: You may find that eventually you will have a regular settlement around there.

The CHAIRMAN: That is happening to some extent now. I do not know whether that was pointed out to you in the cars as you were going along.

MR. GREEN: Yes, it was.

*By Mr. Green:*

Q. I think that happens in every company town.—A. Yes.

*By Mr. Murphy:*

Q. Why are those people who are living outside the village doing so? Is it because they have not been able to get homes of the type they want or because they cannot get homes of their own at a lesser price?—A. Mainly because we cannot house them. There is only one individual I know of who built because he wanted a different type of house and wanted to live separately. But mainly it is because we cannot house them. However, we may not have to house them. For instance, he may be a carpenter or some one whom we can employ locally.

The CHAIRMAN: Are there any other questions?

MR. LOW: There are a lot of them but it is nearly 1:00 o'clock now.

The CHAIRMAN: What is the wish of the committee on the subject of further questions?

MR. GIBSON: I think we have had a pretty good over-all picture.

MR. PINARD: I think we have pretty well exhausted the subject of the village.

MR. GREEN: I would like to move a vote of thanks to Mr. Gray and Mr. Morison for coming down here and answering all our questions.

The CHAIRMAN: Your chairman will have considerable pleasure in conveying that vote of thanks to Mr. Gray and Mr. Morison. Now, will someone move the adjournment.

Mr. Low: I move we adjourn.

The committee adjourned.

**REPORT TO THE HOUSE****THURSDAY, December 8, 1949.**

The Special Committee appointed to examine into the operations of the Atomic Energy Control Board begs leave to present the following as its

**FIRST AND FINAL REPORT**

Your Committee was appointed on October 31, 1949, under the following terms of reference:

*Resolved.*—That a special committee be appointed to examine into the operations of the Atomic Energy Control Board; that the said Committee be empowered to sit during the sittings of the house and to print such papers and evidence from day to day as may be ordered by the committee; and to report from time to time; that the said committee consist of Messrs. Breithaupt, Brooks, Coldwell, Bourget, Gibson (*Comox-Alberni*), Green, Kirk (*Digby-Yarmouth*), Low, McCusker, McIlraith, Murphy, Pinard, Stuart (*Charlotte*), Winkler.

Your Committee held six public sittings, several meetings in camera, and, in addition, visited the atomic energy project at Chalk River on November 15 and 16. It made a general survey of the Atomic Energy Control Board's activities in the field of scientific research and in particular examined the operation of the atomic energy project at Chalk River. Evidence was also adduced in regard to the financial aspect of the project in relation to the organization, housing and general administration of the whole community involved, as well as in relation to the scientific activities.

Your Committee is of the opinion that the atomic energy project at Chalk River is well and efficiently run, and that the Canadian activity is in the forefront of atomic research. It finds the calibre of the personnel excellent, the general morale of the employees high, and the administration efficient.

For Canada to continue in the forefront in this field, it will be necessary to press forward the work with vigour. Your Committee recommends the expansion and development of the project as required from time to time, and further recommends that the government undertake the expansion of the present facilities by the construction of an additional reactor and such research equipment as may be required.

Your Committee believes that Canadian universities should be given every support which will enable them to continue and expand their contributions in the field of nuclear research. Already, with financial aid and encouragement from the Atomic Energy Control Board, it has been made possible for our universities to participate in several projects of vital importance in developing the use of atomic energy. By assisting the universities in important phases of atomic research, young persons with scientific aptitude and training can be recruited for the new and challenging fields of physical, biological, agricultural and medical sciences which have been enlarged by recent developments in the study of nuclear physics. Your Committee considers that a wise course is being followed in making grants to various universities throughout Canada which display interest and capacity in nuclear physics; and we believe that this policy avoids duplication of effort and consequent waste of public funds. Your Committee therefore recommends that the Atomic Energy Control Board be encouraged in its policy

of granting aid and assistance to Canadian universities and to Canadian students in the study of nuclear physics and the beneficial uses of radioactive material.

Evidence placed before your Committee indicates that important research in the realm of medicine and agriculture is being undertaken at Chalk River, in some Dominion and Provincial government departments, medical institutions, and universities. Your Committee commends this work and recommends that further encouragement be given to it.

Evidence adduced also indicates that Canadian industry is becoming increasingly aware of the possibilities inherent in the field of atomic science; and in order that further encouragement be given to industry in carrying out these investigations, your Committee recommends that consideration be given to the free distribution of certain isotopes to approved industrial concerns for another year. Your Committee further recommends that the work initiated at the Conference on Industrial Uses of Radioactive Isotopes held at Ottawa on December 7, 1948, be continued and extended by holding further conferences. It is suggested that consideration also be given to holding regional conferences on this subject.

Your Committee is of the opinion that the closest liaison should be maintained between scientific groups operating in Canada and all other friendly nations, and commends the present attitude of Canada in this regard.

Your Committee has been in existence for only six weeks and in that time has been unable to complete its examination into the field of atomic energy development. Furthermore, this field is a new one, is widening rapidly, and may well be of tremendous importance to Canada. For these reasons your Committee recommends that a special committee be reconstituted next session.

Your Committee desires to place on record its appreciation of the assistance given to it by Dr. C. J. Mackenzie, President, National Research Council, and President, Atomic Energy Control Board; by Dr. David A. Keys, Vice-President (Scientific), National Research Council, in charge of the Atomic Energy project at Chalk River, and by the members of the Board's staff as well as the employees of the Chalk River project.

A copy of the printed minutes of proceedings and evidence together with a list of the documents filed with the Committee is appended.

All of which is respectfully submitted.

GEORGE J. McILRAITH,  
*Chairman*

## APPENDIX

## LIST OF DOCUMENTS FILED WITH THE COMMITTEE ON ATOMIC ENERGY

1. An Act relating to the Development and Control of Atomic Energy, Chap. 37, George VI, 1946, together with Statutory Orders and Regulations under the Act.
2. A group of papers presented before the sixty-first Annual General and Professional Meeting on The Engineering Institute of Canada, May 8, 1947, in Toronto, Ontario, and reprinted from The Engineering Journal under the title "Atomic Energy — A Canadian Symposium".
3. Chart showing the Chalk River Site.
4. Chart of the organization at Chalk River.
5. General outline of organization and duties of the Atomic Energy Control Board, prepared for the information of Members of the Committee.
6. Chart showing the staff organization of the Chalk River project.
7. Health Radiation and Contamination Control, by G. H. Guest, Health Radiation Branch, dated January 1, 1948.
8. Proceedings of the Conference on Industrial uses of radioactive isotopes, held in Ottawa, December 7, 1948.
9. Industrial uses of radioisotopes, published by G. H. Guest, dated December, 1948.
10. The Melchett lecture of the Institute of Fuel, delivered October 8, 1947, by Sir James Chadwick (reprinted from "Nature", March 29, 1947).
11. Unclassified researches in Nuclear Physics at Chalk River—1948, by W. B. Lewis, dated 24 November, 1948.
12. Atomic Energy as the servant of humanity by David A. Keys. (Offprint from Queen's Quarterly, Vol. LV. No. 2, 1948).
13. Applications of recent advances in Nuclear Physics to Medicine, by J. S. Mitchell (reprinted from The British Journal of Radiology).
14. Short Bibliography on Nuclear Physics, dated November 14, 1949.







